

## **ABSTRACT**

An XDSL system comprising a hybrid circuit in operative communication with a transmission line and an XDSL modem associated with a subscriber premises. The hybrid circuit comprises a plurality of selectable impedance circuits having different impedance values. A controller selectively engages each of the impedance circuits in-line with the XDSL modem and the transmission line. The controller records the performance of the modem with each circuit engaged, and selects the desired impedance circuit as a function of the performance characteristics associated with each of the impedance circuits. The impedance circuit which provides the best performance characteristic is selected as the impedance circuit for normal modem operation.